

**PROPOSED PLAN  
THIRD EXPLANATION OF SIGNIFICANT  
DIFFERENCES  
for the  
JOHNS-MANVILLE SITE  
WAUKEGAN, ILLINOIS**

## **INTRODUCTION AND STATEMENT OF PURPOSE**

The Johns Manville Site ("JM Site") consists of approximately 150 acres located at 1871 Pershing Road in Waukegan, Illinois. JM deposited wastes containing primarily asbestos at the Site during the 1920s to the 1980s. On June 30, 1987, the Regional Administrator signed a Record of Decision ("ROD") for the Johns Manville Site. Johns Manville completed the construction of the remedy on August 21, 1991. However, conditions discovered during construction necessitated some changes, which were set forth in a February 9, 1993, Explanation of Significant Differences (ESD). The shutdown of Johns Manville's manufacturing facility in 1998 necessitated a second ESD, which was executed on September 22, 2000 and outlined additional work needed to close the facility's former wastewater treatment system and non-asbestos containing landfill areas. JM has agreed to implement the work in the second ESD in a First Amended Consent Decree ("FACD"), which was entered by the court on December 16, 2004.

In June 2004, Blanding's turtles were observed near the fence line of the JM Site but have not yet been observed in the areas planned for remedial activities under FACD and the ROD as modified by the ESDs. The Blanding's turtle is a threatened species under the Illinois Endangered Species Act. The Conservation Plan described in this Third Explanation of Significant Differences (Third ESD) will be implemented to meet the substantive requirements of 17 Ill. Adm. Code Section 1080.10. The Conservation Plan does not change the remedy set forth in the ROD as modified and the FACD. Rather the Conservation Plan adjusts the timing of the construction of the remedial components and provides additional activities that will be conducted to assess whether Blanding's turtles are located on the Site and to minimize and mitigate impacts on Blanding's turtles.

Therefore, pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA") Section 117(c), 42 U.S.C. § 9617(c), and Section 300.435(c)(2)(I) of the National Contingency Plan (NCP), 40 C.F.R. § 300.435(c)(2)(I), U.S. EPA is publishing this third Explanation of Significant Differences. As required by Section 300.825(a)(2) of the NCP, 40 C.F.R. § 300.825(a)(2), this ESD will become part of the Johns-Manville Administrative Record which is available for review at the Waukegan Public Library located at 28 North County Street, Waukegan, Illinois and the U.S. EPA Records Center located at 77 West Jackson Boulevard, Chicago, Illinois. The information used in U.S. EPA's assessment is currently available at the cited repository.

## **SITE HISTORY, CONTAMINATION, AND SELECTED REMEDY**

From the 1920s through the mid-1980s, Johns Manville owned and operated a 300 acre property located at 1871 North Pershing Road in Waukegan, Illinois, as an asbestos manufacturing and landfill facility. Johns Manville still owns this facility property. The formal disposal area at the facility property covers approximately 150 acres. Johns Manville deposited wastes containing primarily asbestos at the Site since about 1928. In the mid-1980s, Johns Manville stopped using asbestos in its manufacturing processes at the facility. Johns Manville

discontinued all manufacturing activities at the facility in 1998.

The United States Environmental Protection Agency (U.S. EPA) listed the Site on the National Priorities List, 40 C.F.R. Part 300 (NPL), in December 1982. Johns Manville completed a Remedial Investigation/Feasibility Study (RI/FS) in 1987. The 1987 Johns Manville Remedial Investigation indicated the need to prevent releases of asbestos and particulate matter into the air. It also indicated a need for further air, ground water, and surface water monitoring at the site and a mechanism for remediation of any contaminants detected in concentrations that would present an endangerment to public health and the environment.

Johns Manville evaluated different alternatives to address the site contamination problems in the Feasibility Study and after detailed analysis of the alternatives (including a no action alternative), U.S. EPA issued a Proposed Plan detailing U.S. EPA's proposed remedy. After taking into consideration all public comments, the Regional Administrator signed a ROD on June 30, 1987.

The United States, the State of Illinois, and Johns Manville entered into a consent decree for the design and implementation of the selected remedy. The U.S. District Court for the Northern District of Illinois entered the consent decree in March 1988. Johns Manville started physical construction of the remedy in November 1988 and completed construction in August 1991. With the exception of the miscellaneous disposal pit, all dry waste piles were provided with a soil cover, with vegetation, as specified in the Record of Decision. U.S. EPA documented changes to the ROD that it approved during remedy implementation, in an ESD dated February 9, 1993.

Johns Manville continued to pump storm water runoff into the wastewater treatment system to maintain a wet condition and prevent any airborne asbestos releases from the sides or bottoms of the ponds. The shutdown of Johns Manville's manufacturing facility in 1998 necessitated a second ESD, which was executed on September 22, 2000. The Second ESD outlined additional work needed to close the facility's former wastewater treatment system and non-asbestos containing landfill areas. (See Figure) The United States, JM, and the State of Illinois entered into a *First Amended Consent Decree for the design and implementation of the work described in the second ESD*. The U.S. District Court for the Northern District of Illinois entered the First Amended Consent Decree on December 16, 2004.

#### **THE BASIS FOR THIS ESD**

In June 2004, IDNR personnel identified a Blanding's turtle in the Illinois Nature Preserve (see Figure) located north of the JM Site. During August 2004, JM personnel identified two Blanding's turtles north of the Borrow Pit area (see Figure) on the JM property. As of March 2005, no additional Blanding's turtles have been observed near or on the Johns Manville Site.

### **Biological data on the Blanding's Turtle**

The Blanding's turtle has been identified as a threatened species under the Illinois Endangered Species Act. Blanding's turtles are found in and around shallow weedy ponds, marshes, swamps, and lake inlets and coves. They prefer slow-moving, shallow water and a muddy bottom with plenty of vegetation. The Blanding's turtle mates in water mainly during April and May. Mostly in June, female turtles may travel considerable distances from the water to find suitable nest sites to lay their eggs. Female turtles prefer open, sunny spots in well-drained but moist sandy soil for nest sites. Females lay 4 to 21 eggs at a time, with an average of 11, which they bury in six-inch holes. Most hatchlings will emerge 50 to 75 days later, in August or early September. Once hatched, the babies move on their own to reach water. Blanding's turtles spend the winter buried in the mud at the bottom of ponds and marshes. Blanding's turtles eat crustaceans, crayfish, insects, insect larvae and eggs, frogs, and plant material. (Ernst, C.H., J.E. Lovich and R.W. Barbour, 1994. "Turtles of the United States and Canada. Smithsonian Institution, Washington, D.C.; see also [animaldiversity.ummz.umich.edu/site/accounts/information/emydoidea\\_blandingii.html](http://animaldiversity.ummz.umich.edu/site/accounts/information/emydoidea_blandingii.html))

### **Description of remedial activities that may impact the Blanding's Turtle; Explanation of the anticipated adverse effects on the Blanding's Turtle**

Blanding's turtles have not been observed in any areas planned for remedial activities under the ROD as modified and the FACD, however, the area may include habitat useable to Blanding's turtles. If the Blanding's turtles make their way to these areas, some could be injured or killed during the activities contemplated under the ROD as modified and the FACD. During implementation of the remedy at the Site, sand may be removed from the bottom of the Borrow Pit and used to cover other wastewater treatment ponds on the Site. Turtles hibernating in the mud of the Borrow Pit, if any, may be disturbed by such activities during winter months. Construction activities in the sediments of the Industrial Canal may disturb turtles (if any) hibernating in the Industrial Canal during winter months.

The settling basin, paper mill ditch, catch basin and mixing basin on the JM Site are poor habitat for Blanding's turtles due to the lack of emergent vegetation within or around these wastewater treatment ponds at the Site. Closure activities are not anticipated to affect the Blanding's Turtles in these areas.

### **DESCRIPTION OF THE SIGNIFICANT DIFFERENCES**

The Conservation Plan is attached as Appendix 1. The Conservation Plan does not change the remedy in the ROD as modified by the First and Second ESDs, which is incorporated in the FACD. Rather the activities in the Conservation Plan adjust the timing of construction activities and add additional conservation activities to the work identified in the FACD and the ROD as modified. Pursuant to Section 121(e)(1) of CERCLA, 42 U.S.C. Section 9621(e)(1), state procedural requirements are not "applicable or relevant and appropriate requirements" with which

remedial actions must comply under CERCLA. (See Memo re: "Permits and Permit 'Equivalency' Processes for CERCLA Onsite Response Actions" (U.S. EPA Feb. 19, 1992)(available at [www.epa.gov/superfund/resources/remedy/pdf/93-55703-s.pdf](http://www.epa.gov/superfund/resources/remedy/pdf/93-55703-s.pdf)) . The Conservation Plan meets the substantive requirements of 17 IL. Adm. Code Ch. 1 Section 1080.10 as discussed below:

### **Measures to minimize and mitigate impacts on Blanding's turtles**

#### **A) Plans to minimize the area, the estimated number and the amount of habitat affected; plans for management of the area; measures to minimize or mitigate the effects of the remedy**

**1. Nature Preserve Area:** No construction will occur in the Nature Preserve area, and thus Blanding's turtles in the Nature Preserve will not be impacted by work under FACD and the ROD as modified. As part of this work, a storm water diversion system will be constructed in the Industrial Canal. As discussed in the Motion to Enter the FACD, the benefit of this diversion system is as follows. Currently, if contaminants in the canal water reach impermissibly high levels, the canal's connection to Lake Michigan cannot be closed without creating a risk that water in the canal will back up into the adjacent Nature Preserve. The storm water diversion system addresses this problem by erecting a barrier between the canal and the Nature Preserve, and by diverting storm water away from the canal, so that the volume of water in the canal can be limited, and overflows into the Nature Preserve minimized. The storm water diversion system will assist in maintaining water balances in the Nature Preserve and thereby minimize negative impacts on flora and fauna (including any Blanding's turtles) that may be present in the Nature Preserve. The Blanding's turtles will be able to maneuver around the diversion system.

#### **2. JM Site**

##### **a) Mitigation Measures for the Entire JM Site**

**i) Blanding's turtle eggs:** IDNR personnel will be contacted if Blanding's turtle eggs are discovered on the JM Site. A hand trowel will be used to dig around the turtle eggs, the eggs will be placed in a container above two inches of soil or appropriate substrate and then loosely covered with 1 ½ inches of soil or appropriate substrate. The eggs may be artificially incubated at an off site location and returned to the Nature Preserve area.

**ii) Blanding's turtles:** If Blanding's turtles are discovered on the JM Site, they will be hand captured if possible and removed to an area in the Nature Preserve near water as directed by IDNR or, if requested, held for IDNR personnel.

**b) Borrow Pit Area:** Dredging of fill sand from the Borrow Pit (if any) will avoid

shallow areas near the banks of the Borrow Pit where turtles may be hibernating in the mud during the winter months. The fence line near the Borrow Pit will continue to be blocked to prevent turtles from entering the JM property in the future. This area will be inspected for Blanding's turtles prior to construction activities. If Blanding's turtles are discovered, they will be hand captured, if possible, and removed to an area in the Nature Preserve near water as directed by IDNR or, if requested, held for IDNR personnel.

**c) Industrial Canal Area and Pumping Lagoon:** Intrusive construction activities undertaken in the Industrial Canal and Pumping Lagoon, to the extent possible, will occur during the summer months to minimize impacts on turtles (if any) that may be hibernating in the mud during the winter months. The fence line north of the Industrial Canal will continue to be blocked to prevent turtles from entering JM property until completion of the remedy. These areas will be inspected for Blanding's turtles prior to construction activities in these areas. If Blanding's turtles are discovered on the JM Site, they will be hand captured, if possible, and removed to an area in the Nature Preserve near water as directed by IDNR or, if requested, held for IDNR personnel.

**d) Settling basin, paper mill ditch, catch basin, and mixing basin:** These JM wastewater treatment ponds are poor habitat for Blanding's turtles due to the lack of emergent vegetation within and around these ponds. These areas will be inspected for Blanding's turtles prior to construction activities in these areas. If Blanding's turtles are discovered, they will be hand captured if possible, and removed to an area in the Nature Preserve near water as directed by IDNR or, if requested, held for IDNR personnel.

## **B. Plans for monitoring the effects of measures**

The assessment of the Blanding's turtle population on the JM property began on August 9, 2004 and will continue until closure of the wastewater treatment ponds. Blanding's turtles are expected to be active from March through the end of October. Daily inspections will occur along the fence line of the Industrial Canal from March through the end of October each year until construction is ended when turtles are expected to be active. Daily inspections will be conducted at settling basin, paper mill ditch, catch basin, mixing basin and other wastewater treatment ponds during March-October 2005 and prior to construction activities on these ponds.

Section 2.3 of the Conservation Plan discusses the monitoring that will be conducted at the Site.

## **C. Adaptive management practices that will be used to deal with changed or unforeseen circumstances that affect the effectiveness of measures instituted to minimize or mitigate the effects**

The conservation plan will be adjusted as needed. Intrusive activities will be timed in

order to avoid to the greatest extent possible impacts on the Blanding's turtles.

The remedial activities will not reduce the likelihood of the survival of the Blanding's turtles in the wild within the State of Illinois, the biotic community of which the species is a part or the habitat essential to the species existence in Illinois. All of the construction activities will take place on the JM Site and will not occur within the Nature Preserve property. The Nature Preserve property covers 829 acres and contains extensive habitat that supports the Blanding's turtle. In addition the Blanding's turtles are located within the northern fourth of Illinois. (See Illinois Natural History Survey Distribution map at [www.inhs.uiuc.edu/cbd/herpdist/species/em\\_blandin.html](http://www.inhs.uiuc.edu/cbd/herpdist/species/em_blandin.html))

### RESPONSE TO COMMENTS

U.S. EPA will hold a public comment period from April 6, 2005 to May 6, 2005 during which time U.S. EPA will receive written comments from the public on this proposed ESD. The written comments received and U.S. EPA responses to the written comments will be in Appendix 2.

### AFFIRMATION OF THE STATUTORY DETERMINATIONS

Based upon the identification of an Illinois threatened species near the northern site boundary, U.S. EPA has modified the remedy selected in the ROD to add a Conservation Plan. U.S. EPA believes that the remedy remains protective of human health and the environment. The changes comply with federal and state requirements identified in the ROD as applicable or relevant and appropriate to this remedial action. The Conservation Plan complies with the substantive requirements of 17 Ill. Adm. Code Section 1080. The revised remedy uses permanent solutions and alternate treatment technologies to the maximum extent practicable for the Johns-Manville Site and is cost effective.

Concur \_\_\_\_\_

Richard C. Karl  
Superfund Division Director

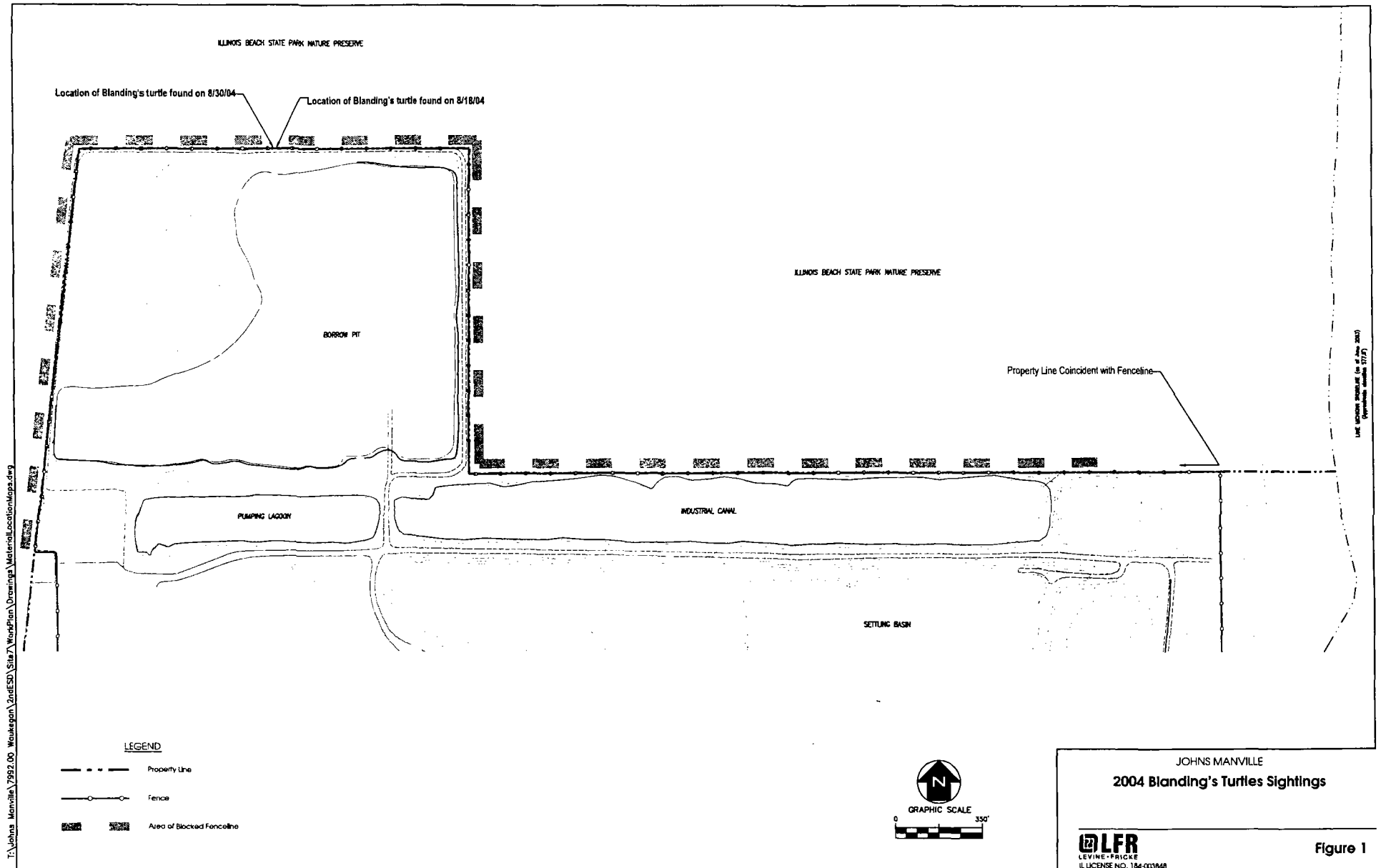
\_\_\_\_\_ Date

Not Concur \_\_\_\_\_

Richard C. Karl  
Superfund Division Director

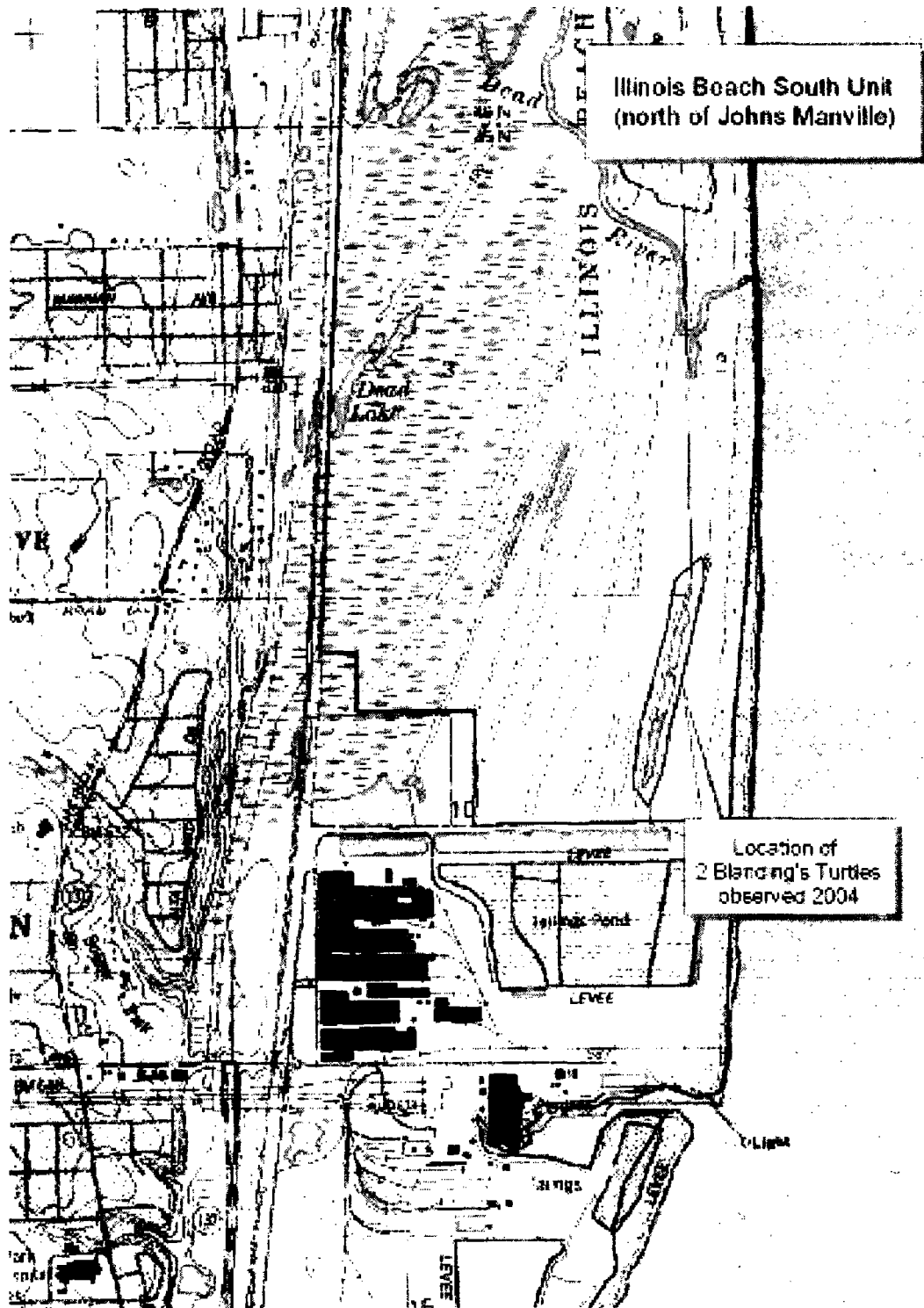
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Appendix 1- Blanding's Turtle Conservation Plan  
Appendix 2 - Responsiveness Summary  
Figure - JM Site





# IDNR 2004 Blanding's Turtle Sightings



**Appendix  
Blanding's Turtle Conservation Plan**

**Johns Manville  
1871 North Pershing Road  
Waukegan, Illinois 60087**

**Revision 1  
March 25, 2005**

**009-07992-00-001**

Prepared for:

W. D. Clinton  
Johns Manville  
1871 North Pershing Road  
Waukegan, Illinois 60087

Prepared by:

LFR Levine-Fricke  
630 Tollgate Road, Suite D  
Elgin, Illinois 60123

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## FIGURE

- 1 Area of Fence Blockage

## ATTACHMENTS

- 1 Example Photos of Fence Blockage
- 2 Contractor, Trucker, and Visitor Acknowledgement Forms
- 3 August 2004 through October 2004 Inspection Records

## **1.0 INTRODUCTION**

This Conservation Plan addresses the survey and management of Blanding's turtles that may be present on certain areas of the Johns Manville (JM) property located at 1871 North Pershing Road, Waukegan, Illinois (the "Site"). Work under this plan has been performed and will continue to be conducted to address Illinois Department of Natural Resources (IDNR) concerns that the upcoming U.S. Environmental Protection Agency- (U.S. EPA) mandated work proposed for closure of the Wastewater Treatment Ponds at the Site might impact this threatened species.

This Conservation Plan was developed in accordance with 17 Illinois Administrative Code (IAC), Section 1080, and is also based upon discussions with the IDNR and the U.S. EPA. The plan has been voluntarily implemented and will continue to be implemented by JM during planning and construction closure activities of the Wastewater Treatment Ponds. The assessment of and inspection for Blanding's turtles on the JM property began on August 9, 2004 and will continue throughout the construction activities for the closure of the Wastewater Treatment Ponds. It will be resumed once closure of the Industrial Canal and Pumping Lagoon has begun.

## **2.0 SCOPE OF WORK**

The scope of work (SOW) already performed by JM may be subdivided into the following major sections:

- Blockage of the JM fenceline bordering the Illinois Beach State Park Nature Preserve.
- Training.
- Periodic inspections (as described below) of that fenceline for the presence of Blanding's turtles.
- Management of any Blanding's turtles found on the JM side of the blocked fenceline during the duration of the project.

Additional details for each of these areas are discussed below.

### **2.1 Blockage of the JM Fenceline**

Based on IDNR's recommendation that gaps in JM's northern boundary fenceline (standard "chain-link" fencing) be blocked as soon as possible during 2004, JM took the necessary steps to block the boundary fenceline. According to IDNR, "this would prevent exit from and access to Johns Manville property for Blanding's turtles during

construction activities and allow the fence to be used as part of the Blanding's turtle population size assessment."

The fenceline surrounding the Borrow Pit was largely already blocked because the soil cover that was installed in this area during the initial remedial action completed in 1992 was placed up against the already-existing fence. As a result, the bottom of the fence was essentially buried up to two feet below the ground surface. A few gaps were present, such as the entry gate to Site 1; these gaps were blocked in the manner described below. There were also intermittent gaps at the base of the fence located along the northern side of the Industrial Canal. These gaps were present in (i) swale areas (up to 3 locations) where during storms, surface water flows from the Nature Preserve through the swales into the Industrial Canal and (ii) the higher, dune areas where the bottom of the fence did not quite reach the ground surface.

To block gaps in the fenceline, the following methods were utilized:

- The approximately 8-inch wide gap at base of the Site 1 access gate (northern side of the Borrow Pit) was blocked using additional chain-link fencing that was installed to the ground surface.
- Where there was no expectation that surface water would flow beneath the fenceline in any appreciable volume (*e.g.*, not a pre-existing swale), gaps in the bottom of the fenceline were closed by attaching silt fencing to the existing chain-link fence and anchoring it to the ground using a board and ground spikes. The photographs in Attachment 1 are examples of how this system was constructed. A gap was blocked if the bottom of the existing fence was more than one-half inch above the ground surface.
- Where water was expected to flow through the fencing (three swales areas along the Industrial Canal), gaps in the existing fence were closed using additional chain-link fencing that was attached to the existing fencing and extended to three inches below the existing ground surface.

Figure 1 shows the area of the northern boundary fence that will remain blocked until the final cover is placed over the wastewater treatment ponds, including the Industrial Canal and Pumping Lagoon. While construction activities are ongoing, JM will repair and maintain any gaps that may develop along the fence line.

## **2.2 Training**

All JM staff and the on-site employees of the engineering firms of David M. Peterson, PE, PC (JM Resident Site Engineer) and LFR Levine-Fricke (JM Environmental Consultant) have received, or will receive prior to working on-Site, training in the recognition and management of Blanding's Turtles. JM will coordinate with IDNR in implementing this training. In addition, all Contractor personnel and visitors are required to attend a Site safety orientation meeting prior to working on-site, and

acknowledge said attendance in writing. The signed acknowledgement form (see Attachment 2) includes a provision that they have been informed that Blanding's Turtles, an Illinois threatened species, may be present on the JM property and that if any species of turtle is observed, the turtle is not to be harmed and they are to inform their supervisor or a JM representative as soon as safely possible.

## **2.3 Monitoring - Inspections by JM Personnel**

### **2.3.1 Blocked Fenceline and Construction Areas**

When Blanding's turtles are expected to be active (weather dependent; roughly from the beginning of April through the end of October), JM personnel or representatives have conducted, and will continue to conduct, a daily inspection and survey of the blocked fenceline and construction areas (weather permitting) near the Industrial Canal and Borrow Pit to inspect for the possible presence of Blanding's turtles, including intercepting those that are attempting to exit the JM property into the Nature Preserve. In 2004, two Blanding's turtles were captured near the Borrow Pit area and were returned to the Nature Preserve north of the Site. Blanding's turtles that are hand captured during the daily fenceline inspections in the future shall also be removed to either the adjacent Nature Preserve as directed by IDNR or, if requested, held for IDNR personnel.

These daily inspections of the blocked fenceline will be conducted continuously through completion of dredging in the Borrow Pit and construction of the stormwater diversion system in the Industrial Canal. Monitoring of these areas will also be conducted during construction activities related to closure of the Industrial Canal and Pumping Lagoon.

### **2.3.2 Potential Nesting Areas**

On the JM property, Blanding's turtles are most likely to nest in areas of loose or disturbed, unsaturated, sandy soil with relatively sparse vegetation that are located near surface water bodies. The northern shoreline areas of the both Industrial Canal and the Borrow Pit meet these criteria. The other shoreline areas typically contain concrete riprap on the side slopes and hard clay or heavily vegetated topsoil at the top of the embankments, and as such, do not represent attractive nesting sites. As the female turtles look for nest sites in the early evening hours from roughly late May through early July, the areas north of the Industrial Canal and Borrow Pit will be inspected daily during this time, with the inspection being conducted at varied times between roughly 6 p.m. and midnight.

### **2.3.2 Settling Basin and Adjacent Water Bodies**

From April to October 2005 (when the turtles are "active"), JM will conduct a daily inspection and survey of the Settling Basin and adjacent water bodies (Papermill Ditch,

Catch Basin and Mixing Basin) prior to commencing construction activities in these areas. Additionally, while construction activities are underway, site personnel (including contractors and subcontractors) will be trained to recognize Blanding's turtles or notify a JM representative if any turtle is observed in and around the work areas. Blanding's turtles that are then hand captured during construction will be removed to either the adjacent Nature Preserve as directed by IDNR or, if requested, held for IDNR personnel.

### **2.3.3 Inspection Reports**

Attached are the inspection reports for August 2004 through October 31, 2004; inspections will be resumed April 1, 2005. JM will supply an annual report at the end of each calendar year documenting the results of the inspections including the date, time of day, location, number of turtles observed and method(s) of inspection (e.g., visual or binocular). JM will keep daily inspection forms on site.

### **2.3.4 Inspection Methods**

All site personnel (including contractors and subcontractors) will be trained to either recognize Blanding's turtles or notify a JM representative if any turtle is spotted, turtles may be noted at any time personnel are on-site. Formal inspections will include the use of binoculars and spotting scopes (20 to 45X). As part of the inspection, JM will note and repair any gaps that may develop in the fenceline.

### **2.3.5 Turtle Capture and Management**

Blanding's turtles that are hand captured on the JM property will either be removed to the Nature Preserve as directed by IDNR or, if requested, held for IDNR personnel. Although it is anticipated that most turtles will be hand captured on land, where feasible, it may be possible to wade into shallow water and hand capture Blanding's turtles, provided there is a solid bottom. This may not be feasible in all water bodies.

## **2.4 Turtle Eggs**

JM will contact IDNR personnel if Blanding's turtle eggs are discovered. A hand trowel will be used to dig around the turtle eggs; the eggs will be placed in a container above two inches of substrate and loosely covered with 1½ inches of soil or appropriate substrate. The eggs will be artificially incubated (by IDNR) at an off site location.

## **2.5 IDNR Inspection**

Assuming that safety concerns (particularly during heavy construction activities) and access protocols (e.g., notification that they will be on-site) can be addressed, IDNR

personnel may also access the JM property to inspect for and/or manage Blanding's turtles.

### **3.0 OTHER ACTIVITIES**

**Borrow Pit:** During the hibernation period for Blanding's turtles (weather dependent, but generally from the beginning of November through the end of March), JM will avoid dredging sand from shallow areas (less than 6 feet of water) near the banks of the Borrow Pit. If at any time Blanding's turtles are discovered in or near the Borrow Pit they will be relocated to the Nature Preserve as directed by IDNR, or if requested, held for IDNR personnel.

**Industrial Canal and Pumping Lagoon:** During the hibernation period for Blanding's turtles (weather dependent, but generally from the beginning of November through the end of March), JM will avoid intrusive construction activities in the Industrial Canal, including dredging of sand around the outfall to Lake Michigan, placement of sheet piling, and placement of pipe for the storm water diversion system. If Blanding's turtles are discovered in or near the Industrial Canal, they will be relocated to the Nature Preserve as directed by IDNR, or if requested, held for IDNR personnel.

**Other areas of the Site including Settling Basin and other water bodies:** The Settling Basin and other water bodies on the JM Site are poor habitat for Blanding's turtles due to the lack of emergent vegetation within and around these water bodies. These areas will be inspected for Blanding's turtles prior to construction activities in these areas. If found, the Blanding's turtles will be hand captured and returned to the Nature Preserve as directed by IDNR, or if requested, held for IDNR personnel.

### **4.0 ADAPTIVE MANAGEMENT PRACTICES**

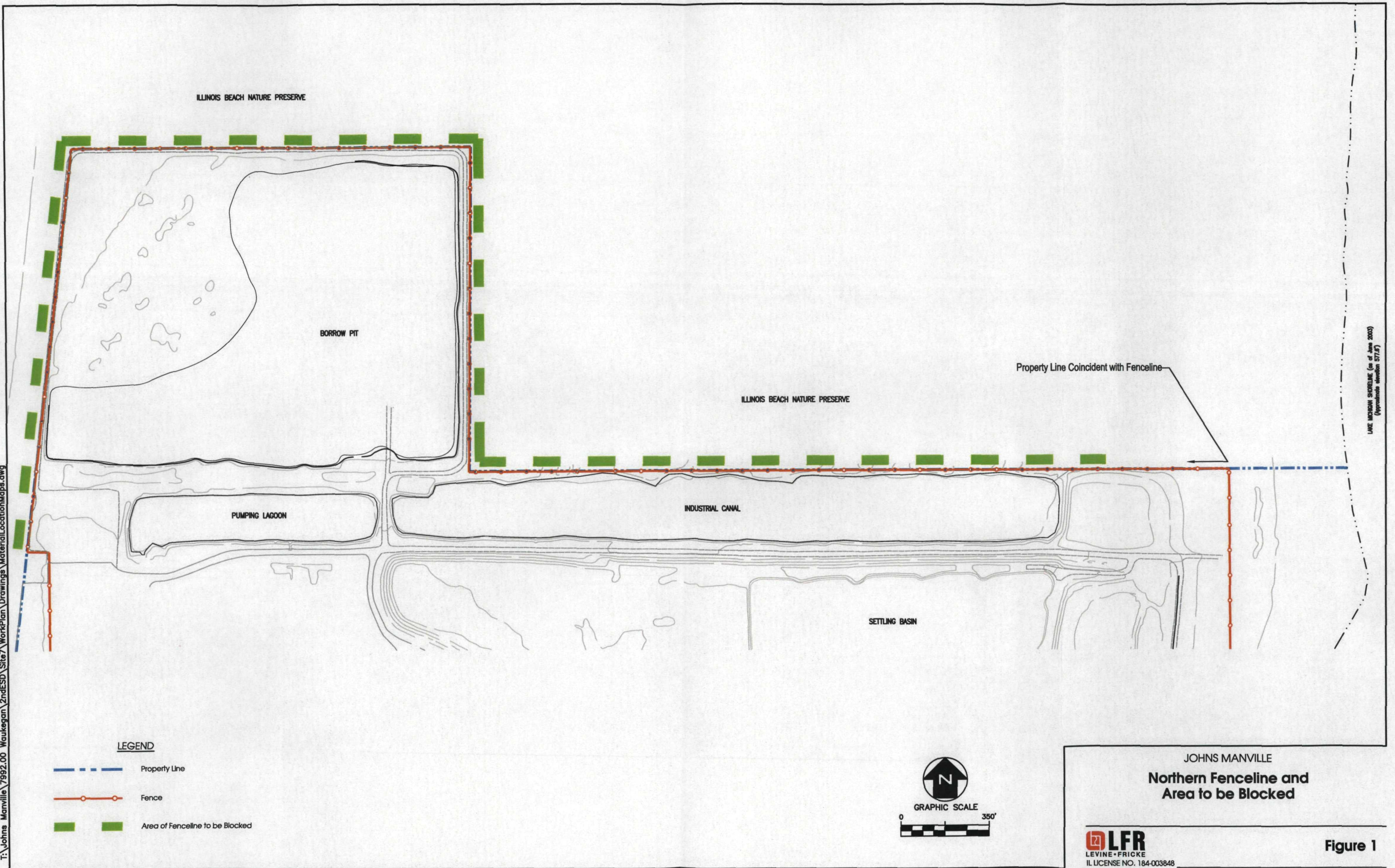
The Conservation Plan may be adjusted (with the approval of U.S. EPA and concurrence of the State of Illinois) as needed to minimize or mitigate effects on Blanding's turtles for changed or unforeseen circumstances.



**Figure**



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## **Attachment 1**

### **Example Photos of Fence Blockage**

Example Fence Blockage using Silt Fencing



**Attachment 2**

**Contractor, Trucker, and Visitor Acknowledgement Forms**

## Site Safety Rules: Contractor Employee Acknowledgement Form

### Johns Manville Waukegan Plant

I acknowledge that the following safety-related requirements have been communicated to me by Johns Manville (JM) personnel (or their on-site representative); I fully understand these requirements; and, I will comply with them at all times during my site visit.

1. The personal safety of other people and myself is my FIRST PRIORITY in all situations
2. A site Hazard Communication Program and its related MSDSs are readily available in the guardhouse for any potential exposures to identified hazardous materials.
3. Report all unsafe conditions and actions immediately to the foreman, site safety coordinator, and resident site engineer.
4. Everyone entering the facility must be logged in and out.
5. I understand that the minimum Personal Protective Equipment requirements on the site are:
  - an approved hard hat (helmet; no "bump caps" allowed);
  - approved safety glasses with fixed side shields;
  - substantial safety shoes or boots, with steel-toe safety shoes required for all visitors performing work which presents a hazard of falling objects that could contact the foot;
6. Fall-protection equipment (body harness/lanyard), as necessary ( $\geq 6$ -ft. height).
7. Other personal protective equipment such as gloves, respirators, earplugs, etc... will be worn when hazards exist. Life preservers must be worn while out on water, except where job conditions make wearing one more hazardous.
8. All work involving fall protection, confined space entry, excavation and trenching activities, hot work, and utility tie-ins work must have a permit signed by the Resident Site Engineer.
9. All electrical power tools will be in proper condition; grounded and used with GFCI protection at all times.
10. Ladders must be used at a safe angle, properly secured and must extend 36 inches above landing.
11. Jobsite housekeeping is the responsibility of everyone.
12. No smoking anywhere on Johns Manville property
13. All vehicles at the facility must obey a 15-mph speed limit.
14. Blanding's Turtles, an Illinois threatened species, may be present on the JM property. If any species of turtle is observed on the JM property, it will not be harmed and the Contractor's supervisor or JM representative will be informed as soon as safely possible.

Contractor Employee Print Name: \_\_\_\_\_

Contractor Employee Signature: \_\_\_\_\_

Organization: \_\_\_\_\_

Date: \_\_\_\_\_

## Site Safety Rules: Truck Driver Acknowledgement Form

### Johns Manville Waukegan Plant

I acknowledge that Johns Manville personnel or their on-site representative has communicated the following safety-related requirements to me. I fully understand these requirements and will comply with them at all times during my site visit.

1. Johns Manville is a very safety conscious company and the personal safety of other people and myself is my (our shared) FIRST PRIORITY in all situations. If in doubt about a specific safety procedure, I will ask JM personnel for guidance. In the case of an injury, I will immediately contact the guards and a rescue team will be called to administer first aid/medical treatment. The telephone number at the guardhouse is (847) 360-4444.
2. Everyone entering the facility must be logged in and out by the guards. In the morning, sign in with the guards to obtain a pass for the rest of the day. At the end of the day, stop, sign out, and return the pass.
3. Jobsite housekeeping is the responsibility of everyone, keep all debris inside the trucks.
4. No smoking is permitted anywhere on Johns Manville property.
5. All vehicles at the facility must obey a 15-mph speed limit and drive only on the designated truck route. Only one warning will be issued, and then the truck driver will not be allowed to return.
6. The *minimum* Personal Protective Equipment requirements on the site (outside of vehicles) are:
  - an approved hard hat (helmet; no "bump caps" allowed);
  - approved safety glasses with fixed side shields;
  - substantial safety shoes or boots, with steel-toe safety shoes required for all visitors performing work which presents a hazard of falling objects that could contact the foot;
  - Fall-protection equipment (body harness/lanyard), as necessary ( $\geq 6$ -ft. height).
7. This site used to manufacture asbestos products. A site Hazard Communication Program and its related MSDSs are readily available in the guardhouse.
8. Site Emergency Evacuation Plan: An emergency or disaster is defined for the purpose of this plan as an event or condition, which has the potential of causing bodily injury to employees, visitors, and contractors and/or significant damage to the buildings or infrastructure.
  - The plant safety coordinator or the designated representative will direct emergency procedures.
  - The guards will telephone 911 to summon assistance in the event that an emergency situation occurs. Radios will be the main communication tool for notifying all site personnel of an emergency situation.
  - If the site needs to be evacuated, all on-site personnel shall gather at the guardhouse for a head count. Reentry to the facility is prohibited until cleared by the site engineer or the designated representative.
9. Blanding's Turtles, an Illinois threatened species, may be present on the JM property. If any species of turtle is observed on the JM property, it will not be harmed and the Contractor's supervisor or JM representative will be informed as soon as safely possible.

Trucking Company Employee Print Name: \_\_\_\_\_

Trucking Company Employee Signature: \_\_\_\_\_

Trucking Company: \_\_\_\_\_ Date: \_\_\_\_\_



## Site Safety Rules: Visitor Acknowledgement Form

### Johns Manville Waukegan Plant

I acknowledge that Johns Manville personnel or their on-site representative has communicated the following safety-related requirements to me. I fully understand these requirements and will comply with them at all times during my site visit.

1. Johns Manville is a very safety conscious company and the personal safety of other people and myself is my (our shared) FIRST PRIORITY in all situations. If in doubt about a specific safety procedure, I will ask JM personnel for guidance.
2. Everyone entering the facility must be logged in and out by the guards.
3. No smoking is permitted anywhere on Johns Manville property.
4. All vehicles at the facility must obey a 15-mph speed limit.
5. The minimum Personal Protective Equipment requirements on the site (outside of vehicles) are:
  - an approved hard hat (helmet; no "bump caps" allowed);
  - approved safety glasses with fixed side shields;
  - substantial safety shoes or boots, with steel-toe safety shoes required for all visitors performing work which presents a hazard of falling objects that could contact the foot;
  - Fall-protection equipment (body harness/lanyard), as necessary ( $\geq 6$ -ft. height).
6. The site was used to manufacture asbestos products. A site Hazard Communication Program and its related MSDSs are readily available for any potential exposures to identified hazardous materials in the guardhouse.
7. Site Emergency Evacuation Plan: An emergency or disaster is defined for the purpose of this plan as an event or condition, which has the potential of causing bodily injury to employees, visitors, and contractors and/or significant damage to the buildings or infrastructure.
  - The plant safety coordinator or the designated representative will direct emergency procedures.
  - The guards will telephone 911 to summon assistance in the event that an emergency situation occurs. Radios will be the main communication tool for notifying all site personnel of an emergency situation.
  - If the site needs to be evacuated, all on-site personnel shall gather at the guardhouse for a head count. Reentry to the facility is prohibited until cleared by the Resident Site Engineer or the designated representative.
8. All areas within the former buildings footprint are Restricted Area and require permission from the site engineer or the designated representative before entry.
9. Blanding's Turtles, an Illinois threatened species, may be present on the JM property. If any species of turtle is observed on the JM property, it will not be harmed and the Contractor's supervisor or JM representative will be informed as soon as safely possible.

Visitor Print Name: \_\_\_\_\_

Visitor's Signature: \_\_\_\_\_

Organization: \_\_\_\_\_

Date: \_\_\_\_\_



**Attachment 3**

**August 2004 through October 2004 Inspection Records**

# Blanding's Turtle Daily Observation Log Summary

Year 2004

Date	Time		Initials	Route Walked:			Blanding's Turtle Sighted (Y/N)*	Comments
	Start	Finish		Around B.P.	E/W - N side I.C.	Other		
8/9/04	7:30 AM	8:40 AM	DH	x	x		N	
8/10/04	7:35 AM	8:55 AM	DH	x	x		N	
8/11/04	7:15 AM	8:40 AM	DH	x	x		N	
8/12/04	7:30 AM	8:40 AM	DH	x	x		N	
8/13/04	7:20 AM	8:45 AM	DH	x	x		N	
8/16/04	9:30 AM	10:55 AM	DH	x	x		N	
8/17/04	12:40 PM	1:55 PM	DH	x	x		N	
8/18/04	7:10 AM	7:50 AM	DH	x		x	Y	See attached sightings log.
8/18/04	9:45 AM	10:45 AM	DH		x		N	
8/19/04	7:50 AM	8:40 AM	DH	x			N	
8/19/04	10:00 AM	11:15 AM	DH		x		N	
8/20/04	7:50 AM	8:55 AM	DH		x		N	
8/20/04	10:15 AM	11:00 AM	DH	x			N	
8/23/04	8:15 AM	8:55 AM	DH	x			N	
8/23/04	12:00 PM	1:00 PM	DH		x		N	
8/24/04	9:30 AM	10:20 AM	DH	x			N	
8/24/04	12:10 PM	1:20 PM	DH		x		N	
8/26/04	10:00 AM	11:05 AM	DH		x		N	
8/26/04	12:00 PM	1:08 PM	DH	x			N	
8/27/04	9:45 AM	10:55 AM	DH		x		N	
8/27/04	12:55 PM	1:45 PM	DH	x			N	
8/30/04	10:00 AM	10:00 AM	DH			x	Y	See attached sightings log.
8/30/04	1:00 PM	2:40 PM	DH	x	x		N	
8/31/04	8:10 AM	9:15 AM	DH	x			N	
8/31/04	1:20 PM	2:15 PM	DH		x		N	
9/1/04	10:20 AM	11:15 AM	DH	x			N	
9/1/04	1:45 PM	2:15 PM	DH		x		N	
9/2/04	7:20 AM	8:15 AM	DH	x			N	
9/2/04	12:05 PM	1:15 PM	DH		x		N	
9/3/04	7:10 AM	8:15 AM	DH		x		N	
9/3/04	9:50 AM	10:45 AM	DH	x			N	
9/7/04	8:00 AM	9:00 AM	DH	x			N	
9/7/04	10:00 AM	11:00 AM	DH		x		N	
9/8/04	7:30 AM	8:40 AM	DH	x			N	
9/8/04	12:20 PM	1:15 PM	DH		x		N	
9/9/04	7:15 AM	8:15 AM	DH	x			N	
9/9/04	9:40 AM	10:30 AM	DH		x		N	
9/10/04	7:30 AM	8:15 AM	DH	x			N	
9/10/04	9:30 AM	10:40 AM	DH		x		N	
9/13/04	7:20 AM	8:15 AM	DH	x			N	
9/13/04	11:40 AM	12:15 PM	DH		x		N	
9/14/04	7:25 AM	8:30 AM	DH	x			N	
9/14/04	9:30 AM	10:30 AM	DH		x		N	
9/15/04	7:20 AM	8:45 AM	DH		x		N	
9/15/04	9:30 AM	10:30 AM	DH	x			N	
9/16/04	9:30 AM	10:45 AM	DH	x			N	
9/16/04	1:30 PM	2:30 PM	DH		x		N	
9/17/04	9:30 AM	11:00 AM	DH	x	x		N	
9/20/04	9:30 AM	11:00 AM	DH	x	x		N	
9/21/04	9:30 AM	10:30 AM	DH	x			N	
9/22/04	8:00 AM	9:00 AM	DH	x			N	
9/22/04	9:45 AM	11:00 AM	DH		x		N	
9/23/04	9:30 AM	11:00 AM	DH	x	x		N	
9/24/04	7:30 AM	9:20 AM	DH	x	x		N	
9/27/04	8:00 AM	9:00 AM	DH	x			N	
9/27/04	9:30 AM	10:20 AM	DH		x		N	
9/28/04	8:15 AM	9:00 AM	DH	x			N	
9/28/04	9:45 AM	11:00 AM	DH		x		N	

B.P. - Borrow Pit

I.C. - Industrial Canal

\* - see attached map for location

# Blanding's Turtle Daily Observation Log Summary

Year 2004

Date	Time		Initials	Route Walked:			Blanding's Turtle Sighted (Y/N)*	Comments
	Start	Finish		Around B.P.	EW - N side I.C.	Other		
9/29/04	7:30 AM	8:30 AM	DH	x			N	
9/29/04	9:45 AM	11:00 AM	DH		x		N	
9/30/04	7:30 AM	8:45 AM	DH	x			N	
9/30/04	9:30 AM	10:30 AM	DH		x		N	
10/1/04	7:20 AM	8:30 AM	DH	x			N	
10/1/04	10:00 AM	10:45 AM	DH		x		N	
10/4/04	9:30 AM	11:00 AM	DH	x	x		N	
10/5/04	8:20 AM	9:15 AM	DH	x			N	
10/6/04	10:00 AM	10:40 AM	DH		x		N	
10/6/04	11:30 AM	12:30 PM	DH	x			N	
10/7/04	9:30 AM	10:40 AM	DH	x			N	
10/7/04	11:50 AM	12:40 PM	DH		x		N	
10/8/04	9:45 AM	10:45 AM	DH	x			N	
10/8/04	12:00 PM	12:45 PM	DH		x		N	
10/11/04	10:30 AM	11:10 AM	DH		x		N	
10/11/04	12:05 PM	1:10 PM	DH	x			N	
10/12/04	9:40 AM	10:40 AM	DH	x			N	
10/12/04	12:15 PM	1:00 PM	DH		x		N	
10/13/04	9:30 AM	10:30 AM	DH	x			N	
10/13/04	12:15 PM	1:00 PM	DH		x		N	
10/14/04	10:15 AM	11:00 AM	DH	x			N	
10/14/04	12:15 PM	1:00 PM	DH		x		N	
10/15/04	9:55 AM	10:40 AM	DH	x			N	
10/15/04	12:30 PM	1:05 PM	DH		x		N	
10/18/04	10:00 AM	10:40 AM	DH	x			N	
10/18/04	12:30 PM	1:05 PM	DH		x		N	
10/19/04	9:55 AM	11:15 AM	DH	x	x		N	
10/20/04	9:30 AM	11:05 AM	DH	x	x		N	
10/21/04	9:30 AM	11:00 AM	DH	x	x		N	
10/22/04	9:30 AM	11:00 AM	DH	x	x		N	
10/25/04	9:40 AM	11:15 AM	DH	x	x		N	
10/26/04	10:10 AM	10:45 AM	DH	x			N	
10/27/04	9:30 AM	10:45 AM	DH	x	x		N	
10/28/04	10:00 AM	10:50 AM	DH	x			N	
10/28/04	12:30 PM	1:15 PM	DH		x		N	
10/29/04	9:45 AM	10:45 AM	DH	x			N	
10/29/04	11:50 AM	12:30 PM	DH		x		N	

B.P. - Borrow Pit

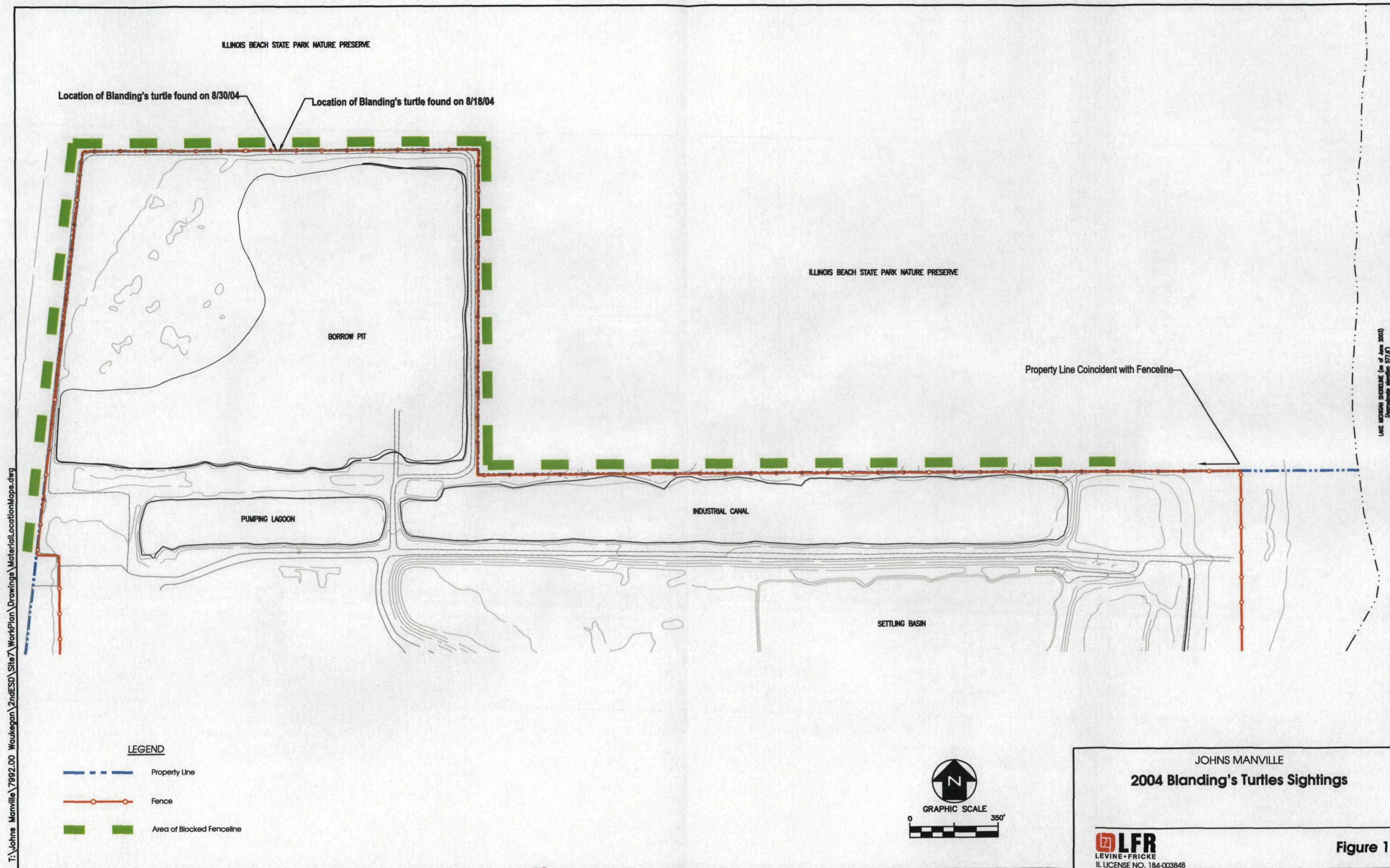
I.C. - Industrial Canal

\* - see attached map for location

## 2004 Blanding's Turtle Sightings Summary

Date	Approx. Time	Approx. Temp. (F)	Weather dry/rain	Explanation of where turtle seen, who saw it, direction headed
8/18/04	10:30 AM	75	Dry	Spotted south side of fence, north of Borrow pit. Turtle was located against the fence apparently trying to enter the Nature preserve. Was spotted by Joe Dietz while trimming brush along fence. The exact location was 791 feet from northwest corner fence post.
8/30/04	10:00 AM	66	Dry	Spotted south side of fence, north of Borrow pit. Turtle was located against the fence apparently trying to enter the Nature preserve. Was spotted by Howard Alwardt while driving around the Borrow Pit conducting a security inspection. Exact location 783 feet from northwest corner fence post.





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